

Urtica dioica



Family: Urticaceae

Local/common names:
Stinging nettle, Bicchu
ghaas, Kandali (Joshimath),
Chichun

Trade name: Stinging
nettle

Profile:

Urtica dioica is a herbaceous flowering plant, native to Europe, Asia, North Africa and North America and is the best-known member of the genus *Urtica*. This species has spiny hairs or stinging trichomes, whose tips come off when touched, transforming the hair into a needle that injects a mixture of poisons such as acetylcholine, histamine and formic acid. This mixture of poisons leads to itching and a temporary painful sensation. The aerial parts and roots of the plant are used for medicines. Cooking, crushing or chopping of the leaves disables the stinging hairs. As stinging nettles usually grows at nitrogen-rich places, it often contains high concentrations of nitrate, which can be converted in the digestive tract to carcinogenic nitrosamines.

Habitat and ecology: It is common in forests, shrubberies and edges of fields. The plant is found mainly in the northwestern Himalayas from Kashmir to Sikkim at an altitude of 1000-3000 m.

Morphology: It is a stinging herbaceous perennial herb, with opposite ovate to lanceolate, coarsely toothed leaves and tiny green flowers in long axillary tassel-like hanging or spreading clusters not longer than the leaves. The plants are dioecious, where the male flowers have 4 ovate perianth segments and 4 stamens, the female flowers have unequal segments and the stigma is like a tuft of hair. The leaves are 5-10 cm with a rounded or shallow heart-shaped base, stalked and with a pair of elliptic stipules at the base. The stem is rather robust, grooved and 80-180 cm in length. The fruits are flattened achenes encircled by a persistent perianth.

Distinguishing features: The plant has opposite ovate to lanceolate, coarsely toothed leaves and tiny green flowers in long axillary tassel-like hanging or spreading clusters not longer than the leaves.

Life cycle: Flowering and fruiting takes place between June-October.

Uses: The plant has several ethno-medicinal uses. The root is diuretic and also used to treat allergies. The stem and leaves are used in the treatment of paralysis. A decoction of the leaves is used as a diuretic, astringent, emmenagogue, anthelmintic and to treat diarrhoea along with the seeds. The leaf paste is effective in minor fractures. It has been found useful in nephritic troubles and haemorrhages, especially of the kidneys or uterus. It is also effective against jaundice. The juice of leaves has high calcium content and is highly beneficial for women and therefore used before, during and after pregnancy for various purposes. The leaf infusion is used as an expectorant, blood purifier, antidandruff treatment and hair stimulant. The dried leaves have been reported to give relieve from asthma and bronchial troubles. It is also useful against chronic hepatitis, cholangitis and cholelithiasis. It also has ethno-veterinary uses and is useful in increasing lactation in cattle. The young shoots are eaten as a vegetable and used as fodder. The plant is also used as a pest repellent. The green stem of this plant is used for cutting the umbilical cord during childbirth. Stinging nettle leaves are high in nutrients, and the leaves can be mixed with other ingredients to create a soup rich in calcium and iron.

Market rate: Data not available